3-month summary

- Autumn is more likely than usual to be wet
- Increase in the chance of stormy conditions
- The chance of autumn being warm is higher than normal
- Cool spells remain possible, especially later in the season

3-month likelihood of impact

Temperature

10% chance the season will be COOL	50% chance the season will be NEAR AVERAGE	40% chance the season will be WARM
0.5× the normal chance	0.8× the normal chance	2.0× the normal chance

Precipitation

10% chance the season will be DRY	55% chance the season will be NEAR AVERAGE	35% chance the season will be WET
0.5× the normal chance	0.9× the normal chance	1.8× the normal chance

Wind speed

10% chance the season will be CALM	55% chance the season will be NEAR AVERAGE	35% chance the season will be WINDY
0.5× the normal chance	0.9× the normal chance	1.8× the normal chance

1-month summary

- September is more likely to be warm than cool
- The chance of a wet September is similar to normal
- The likelihood of September being windy is similar to normal

1-month likelihood of impact

Temperature

5% chance the month will be COOL	60% chance the month will be NEAR AVERAGE	35% chance the month will be WARM
0.3× the normal chance	1.0× the normal chance	1.8× the normal chance

Precipitation

15% chance the month will be DRY	65% chance the month will be NEAR AVERAGE	20% chance the month will be WET
0.8× the normal chance	1.1× the normal chance	1.0× the normal chance

Wind speed

20% chance the month will be CALM	60% chance the month will be NEAR AVERAGE	20% chance the month will be WINDY
1.0× the normal chance	1.0× the normal chance	1.0× the normal chance

Understanding the Outlook

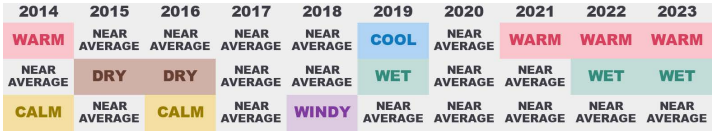
The Outlook uses 3 categories for possible UK temperature, precipitation and wind speed in the next 1 and 3 months:

COOL, NEAR AVERAGE and WARM for temperature
WET, NEAR AVERAGE and DRY for precipitation
CALM, NEAR AVERAGE and WINDY for wind speed

These are linked to observed UK conditions in past years. The NEAR AVERAGE category represents typical conditions for the period and has a normal likelihood of 60%. The higher and lower categories represent more unusual conditions that are more likely to produce impacts. Each has a normal likelihood of 20%.

The Outlook shows how the chances of occurrence of the categories differ from normal, based on knowledge of expected global meteorological patterns. It does not identify which category will actually occur.

Same 3-month period over the last 10 years


2014 2015 2016 2017 2018 2019 2020 2021 2022 2023
WARM NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE COOL NEAR AVERAGE WARM WARM WARM
NEAR AVERAGE DRY DRY NEAR AVERAGE NEAR AVERAGE WET NEAR AVERAGE NEAR AVERAGE WET WET
CALM NEAR AVERAGE CALM NEAR AVERAGE WINDY NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE

Same 1-month period over the last 10 years

2014 2015 2016 2017 2018 2019 2020 2021 2022 2023
WARM COOL WARM NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE WARM NEAR AVERAGE WARM
DRY DRY NEAR AVERAGE WET NEAR AVERAGE WET NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE WET
CALM CALM NEAR AVERAGE NEAR AVERAGE WINDY NEAR AVERAGE NEAR AVERAGE CALM NEAR AVERAGE NEAR AVERAGE

Outlook in context

Drivers of UK weather for September to November
Global weather patterns can affect UK weather during the coming season and their influence acts to shift the chances of the categories in the Outlook. However, the influence of many of these drivers on the UK climate tends to be small at this time of year.
Drivers relevant to the current Outlook include:
• The warming of UK climate consistent with wider global warming trends.
• Cooler-than-usual marine temperatures to the west of the UK which will likely slightly supress UK temperatures
• ENSO is neutral with a transition to La Niña possible during autumn.
• Should La Niña develop this would increase the chance of westerly winds and of northwesterly winds towards the end of the period.

Long-range weather predictions
The Met Office and other prediction centres around the world routinely produce long-range forecasts of conditions in the months ahead. The main signals for September and the autumn as a whole, is an increased chance of lower-than-normal pressure north of the UK, favouring a greater-than-usual instance of westerly winds from the Atlantic. Towards the end of the season, a signal emerges for greater-than-usual chances of low pressure to be centred northeast of the UK, leading to an increase in the potential for northwesterly winds.

Impacts
Consistent with our warming climate, there is an increased chance of warm conditions on average this coming autumn. At this time of year, the chance of impacts from hot weather are waning but remain possible early in the period. Cooler spells of weather remain possible, especially later in the season, when the chance of northwesterly winds increases. There is no indication for the chances of wet or dry conditions to deviate significantly from normal during September. However, for the autumn as whole, wet conditions are more likely than usual, with northern parts of the UK having the greatest chances of being wetter than normal. Conditions are unlikely to be as extreme as the very wet autumn last year. Higher-than-normal chances of a windy season implies greater likelihood of stormy conditions at times, especially when compared to recent autumns.

Outlook compared to normal likelihood

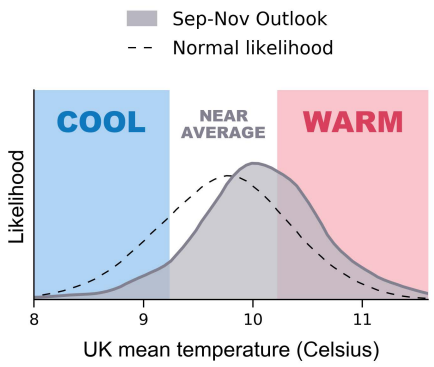
The curves below show the likelihood of the 1- and 3-month average temperature, precipitation and wind speed taking specific values. In each case:

- The dashed curve shows the normal likelihood based on how often each value has been recorded in past years
- The solid curve shows the current likelihood based on the Outlook for this year

The differences in these curves show how the probabilities for the coming periods differ compared to past years. Where the solid curve (corresponding to this year's Outlook) lies above the dashed curve (normal likelihood), the temperature, precipitation or wind speed at that point has a greater-than-normal likelihood of occurring. Likewise, wherever it is below the dashed curve, the likelihood of those values is less than normal.

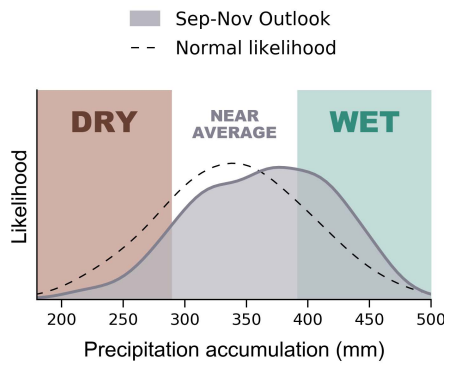
A shift of the solid curve to the left of the dashed curve indicates an increase in the chances of below-average temperature, rainfall or winds. A shift to the right, meanwhile, indicates increased chances of above-average values.

3-month temperature Outlook compared to normal



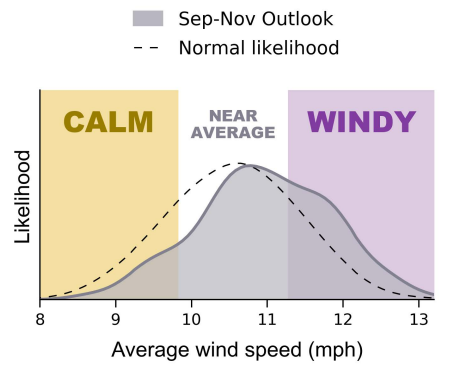
Likelihood leans towards warm

3-month precipitation Outlook compared to normal



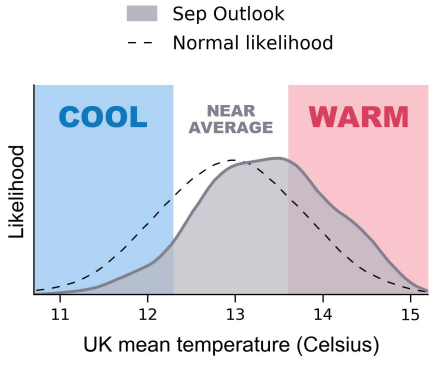
Likelihood leans towards wet

3-month wind speed Outlook compared to normal



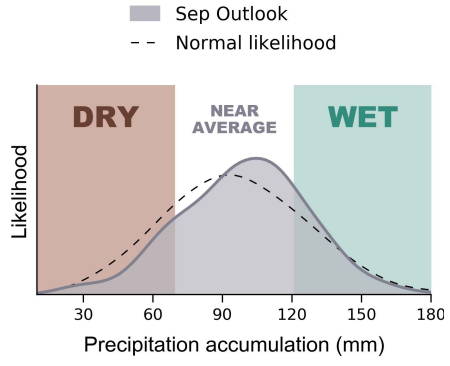
Likelihood leans towards windy

1-month temperature Outlook compared to normal



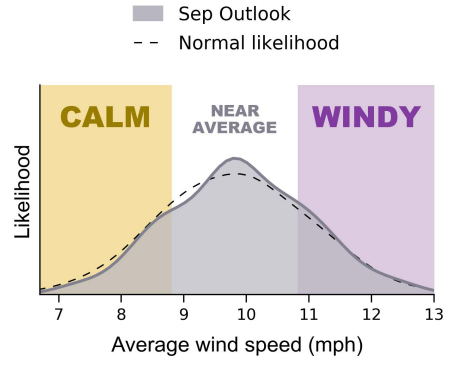
Likelihood leans towards warm

1-month precipitation Outlook compared to normal



Likelihood leans slightly away from dry

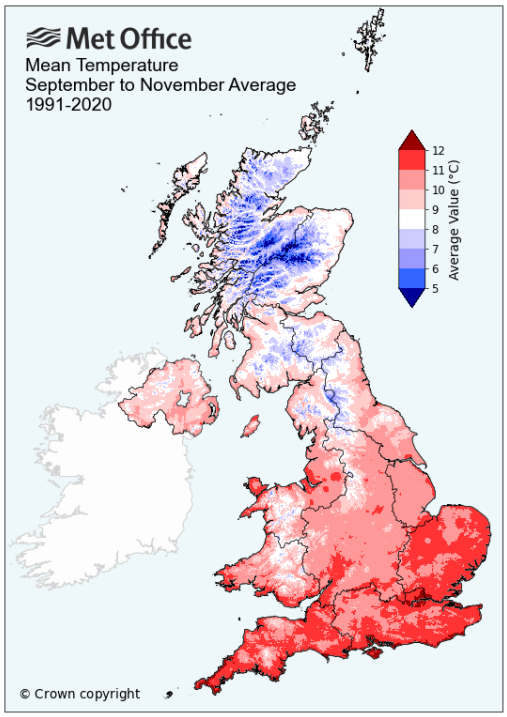
1-month wind speed Outlook compared to normal



Likelihoods of calm and windy are similar

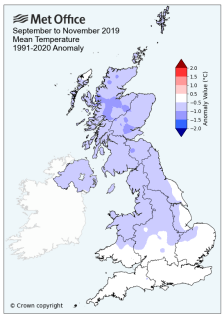
Long-term average temperatures (3-month)

This page shows the long-term average temperatures across the UK applicable to the 3-month Outlook period.

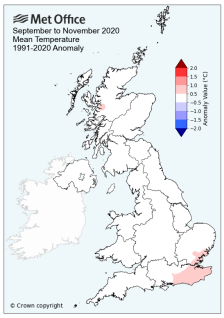


Average temperatures for September - November based on observations of past years.

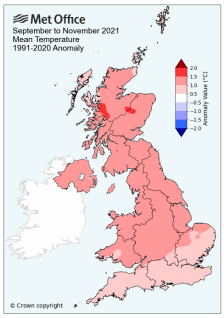
Last 5 years temperatures, difference from average (3-month)



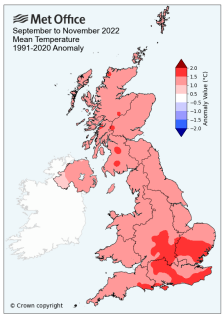
Sep - Nov 2019



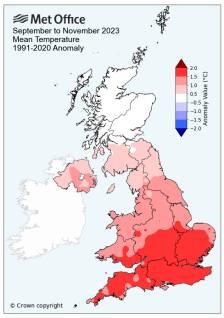
Sep - Nov 2020



Sep - Nov 2021



Sep - Nov 2022



Sep - Nov 2023

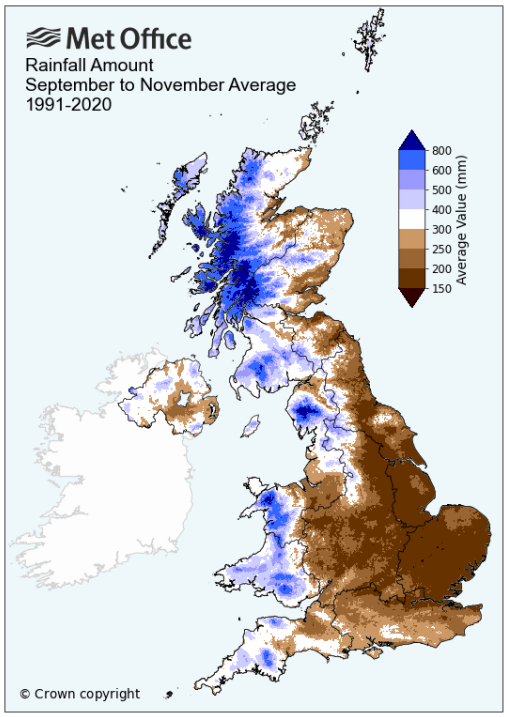
Anomaly (°C)

< -2.0	-2.0 to -1.5	-1.5 to -1.0	-1.0 to-0.5	-0.5 to 0.5	0.5 to 1.0	1.0 to 1.5	1.5 to 2.0	> 2.0

These maps show how September - November temperatures in the last five years differed from the long-term average temperatures shown above in the upper panel. Pink and red colours indicate warmer-than-average conditions while blue shades indicate cooler-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

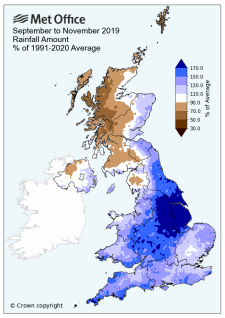
Long-term average precipitation (3-month)

This page shows the long-term average precipitation across the UK applicable to the 3-month Outlook period.

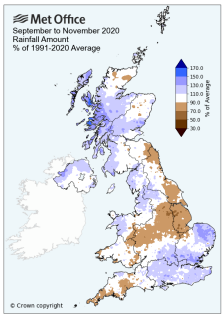


Average precipitation for September - November based on observations of past years.

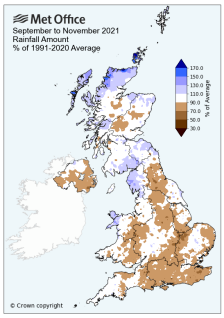
Last 5 years precipitation, difference from average (3-month)



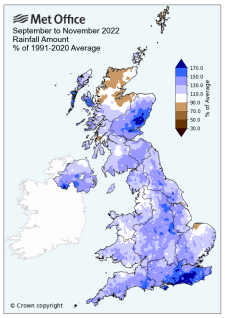
Sep - Nov 2019



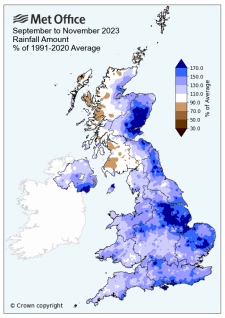
Sep - Nov 2020



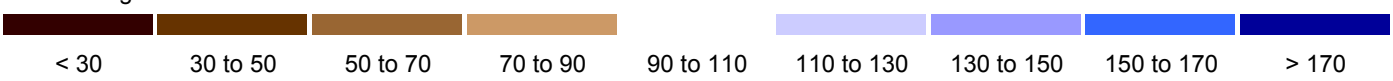
Sep - Nov 2021



Sep - Nov 2022



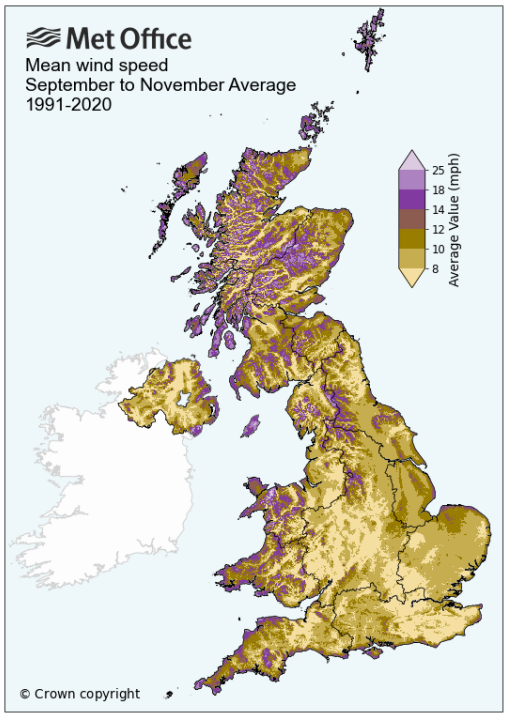
Sep - Nov 2023



These maps show how September - November precipitation in the last five years differed from the long-term average precipitation shown above in the upper panel. Brown colours indicate drier-than-average conditions while blue shades indicate wetter-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

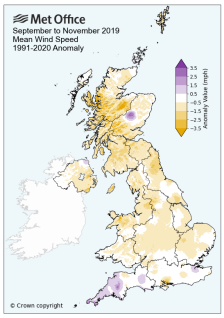
Long-term average wind speed (3-month)

This page shows the long-term average wind speed across the UK applicable to the 3-month Outlook period.

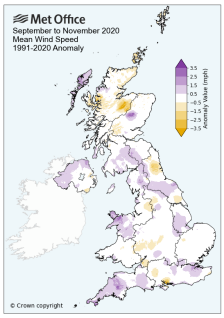


Average wind speed for September - November based on observations of past years.

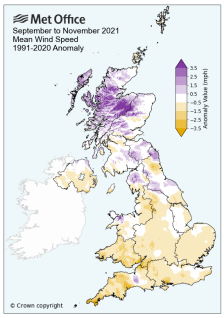
Last 5 years wind speed, difference from average (3-month)



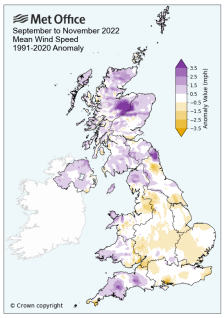
Sep - Nov 2019



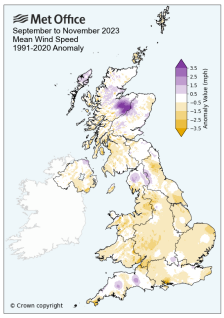
Sep - Nov 2020



Sep - Nov 2021



Sep - Nov 2022



Sep - Nov 2023

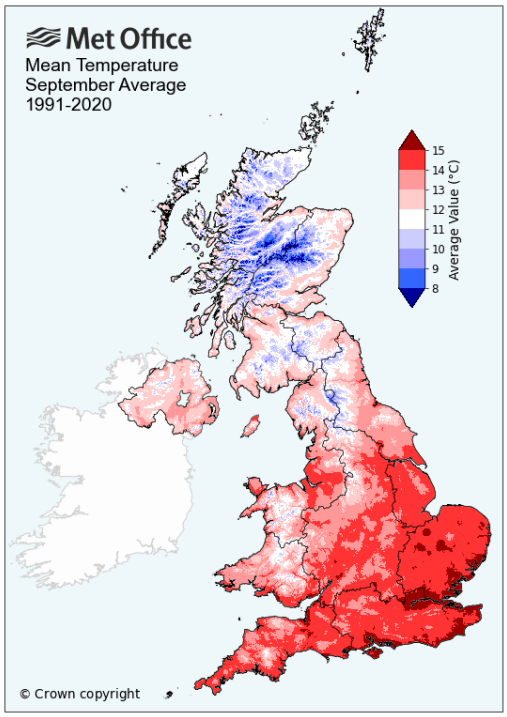
Anomaly (mph)

< -3.5	-3.5 to -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	> 3.5

These maps show how September - November wind speed in the last five years differed from the long-term average wind speeds shown above in the upper panel. Yellow colours indicate calmer-than-average conditions while purple shades indicate windier-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

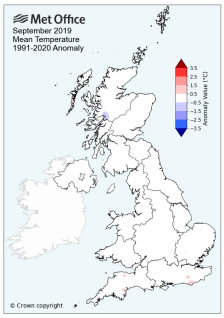
Long-term average temperatures (1-month)

This page shows the long-term average temperatures across the UK applicable to the 1-month Outlook period.

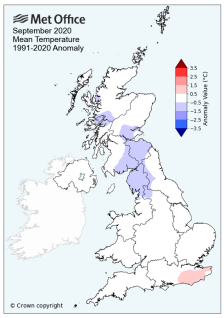


Average temperatures for September based on observations of past years.

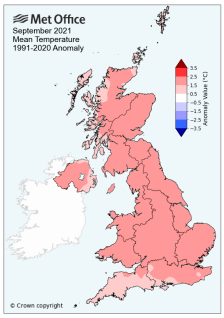
Last 5 years temperatures, difference from average (1-month)



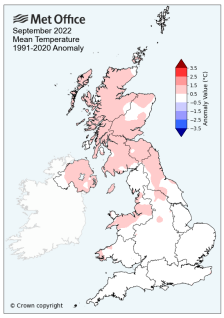
Sep 2019



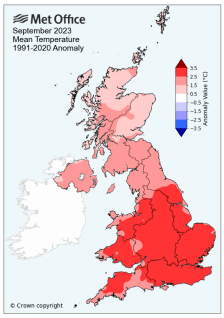
Sep 2020



Sep 2021



Sep 2022



Sep 2023

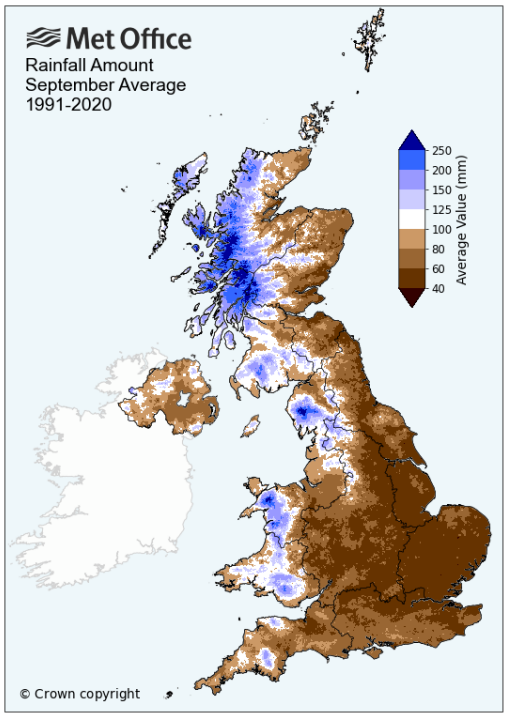
Anomaly (°C)

< -3.5	-3.5 to -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	> 3.5

These maps show how September temperatures in the last five years differed from the long-term average temperatures shown above in the upper panel. Pink and red colours indicate warmer-than-average conditions while blue shades indicate cooler-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

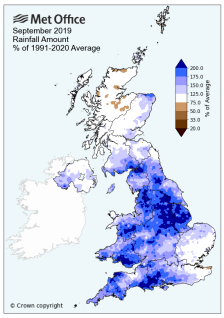
Long-term average precipitation (1-month)

This page shows the long-term average precipitation across the UK applicable to the 1-month Outlook period.

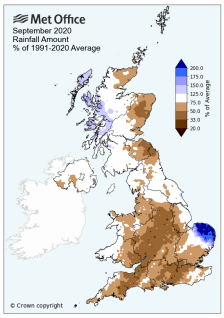


Average precipitation for September based on observations of past years.

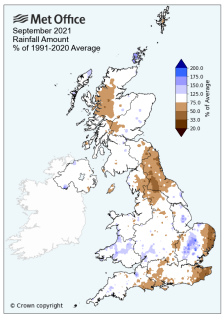
Last 5 years precipitation, difference from average (1-month)



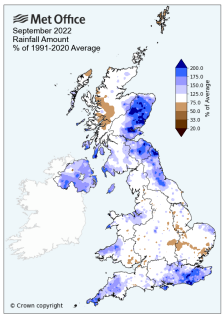
Sep 2019



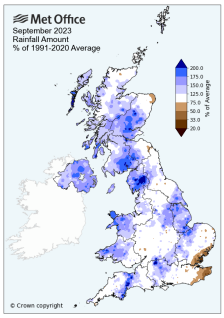
Sep 2020



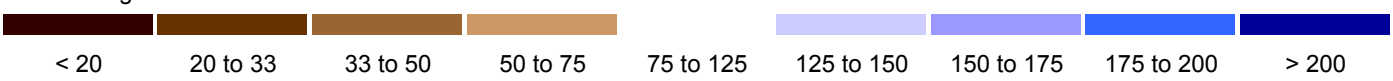
Sep 2021



Sep 2022



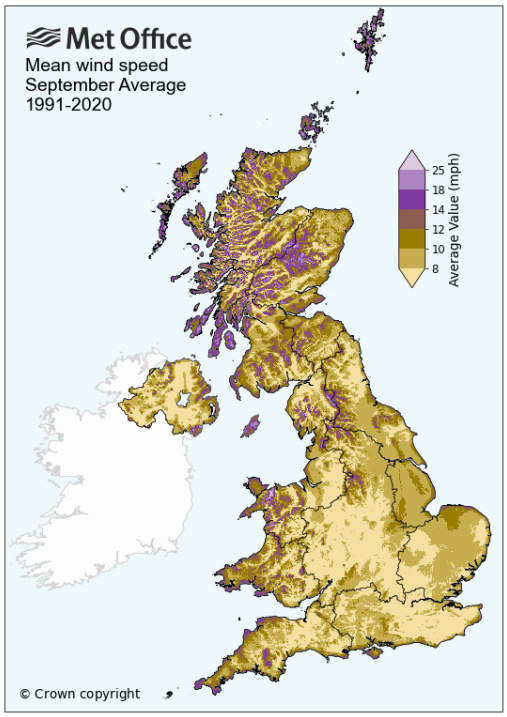
Sep 2023



These maps show how September precipitation in the last five years differed from the long-term average precipitation shown above in the upper panel. Brown colours indicate drier-than-average conditions while blue shades indicate wetter-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

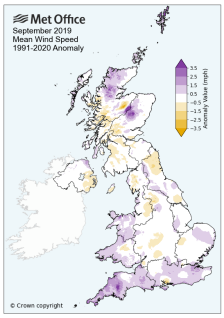
Long-term average wind speed (1-month)

This page shows the long-term average wind speed across the UK applicable to the 1-month Outlook period.

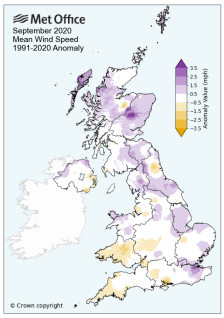


Average wind speed for September based on observations of past years.

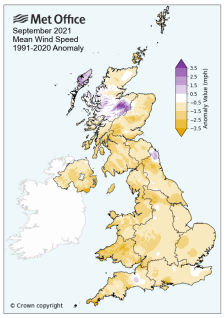
Last 5 years wind speed, difference from average (1-month)



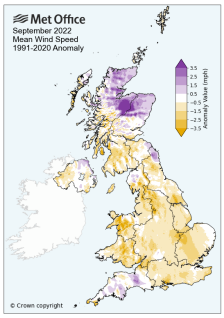
Sep 2019



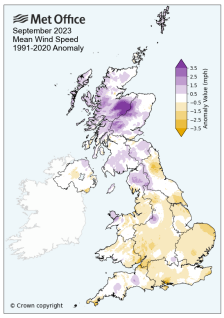
Sep 2020



Sep 2021



Sep 2022



Sep 2023

Anomaly (mph)

< -3.5	-3.5 to -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	> 3.5

These maps show how November wind speed in the last five years differed from the long-term average wind speeds shown above in the upper panel. Yellow colours indicate calmer-than-average conditions while purple shades indicate windier-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

Q&As

Q. What is the point of the Outlook, who is it meant for?
A. This Outlook is produced for planners in government and business who make risk-based decisions. These users are aware of the complexities of this type of outlook and will include those factors in their decision-making process.

Q. How did you decide on the Outlook? What are the main factors affecting it?
A. It is based on information from observations, several numerical prediction systems and expert judgement. See the 'Outlook in Context' section of the Outlook for more details.

Q. Is the Outlook for the whole country?
A. The Outlook is for the average of conditions over the UK as a whole. Regional deviations from the UK-average can occur. For example, average UK precipitation can result from below-average rainfall for the northwest and above-average for the southeast.

Q. How confident are you in this Outlook?
A. The percentages in the 'Likelihood of Impact' sections of the Outlook give the level of confidence.

Q. With the Outlook suggesting an increased chance of stormy conditions overall, will we see more named storms this Autumn?
A. While the Outlook suggests an increase in the likelihood of windy and even stormy conditions, it cannot predict the number of named storms. Whether or not storms are named is related to their expected impacts, which depends on detailed factors such as the track of the storm and its time of arrival. Indications of the prospects for named storms should be sought from our shorter-range forecasts. This Outlook doesn't preclude the possibility of calm spells.

Q. With the increased chance of warmer than normal conditions is a warm Autumn on the cards?
A. The Outlook is not a guarantee of prolonged warm weather and cool spells remain possible, especially later in the season. The chances of impacts from hot weather dwindle as we go through Autumn, with higher-than-average temperatures more likely to be due to a mix of warm and cool days. Fluctuations in temperature are not uncommon during a typical Autumn in the UK and warmer-than-average days could still be cloudy, wet or windy.

Q. Does this Outlook signal a risk of flooding?
A. Although the Outlook indicates an increased likelihood of autumn being wetter and windier than normal, the overall figurers are likely to mask a regional split, with north and northwest areas more likely to see higher rainfall totals than the south and southeast. Periods of increased flood risk may be likely, and the risk of flooding in your area should be monitored using the Environment Agency, Scottish Environment Protection Agency, Natural Resources Wales and NI Direct websites.

About the Outlook

The Outlook presented here is for United Kingdom as a whole and is based on information from observations, several numerical prediction systems and expert judgement. It is updated monthly to reflect the latest information on global weather patterns and their effect on the UK. The Outlook is designed to be used in conjunction with shorter-range forecasts – detailed weather forecast information is available on the Met Office website.

In this product, temperature refers to the average of daytime maxima and night-time minima. Wind speed refers to the average wind speed at a height of 10 metres. All numerical values relate to averages (temperature, wind speed) or totals (precipitation – rain, sleet, snow and hail) over 1 or 3 months, which are further averaged over the UK land area as a whole. Normal likelihood and long-term averages are established using the period 1991-2020.

Find out more

- UK 3-month Outlook user guidance page:
  https://www.metoffice.gov.uk/services/government/contingency-planners/user-guidance/user-guidance
- Explainers on climate drivers (such as the El Niño Southern Oscillation and North Atlantic Oscillation) that influence seasonal forecasts and the impacts they can have on UK weather:
  https://www.metoffice.gov.uk/services/government/contingency-planners/seasonal-forecasts-and-climate-drivers-resources
- Contingency planners page:
  https://www.metoffice.gov.uk/services/government/contingency-planners/index

Contact us

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www.metoffice.gov.uk

Email:
enquiries@metoffice.gov.uk

Provide your feedback

We would like to hear your feedback on the UK 3-month Outlook to understand how it is being used. Please fill in the short form using this link or QR code to share your thoughts.